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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,009	09/28/2001	Gino De Brabander	522-1762	4828

7590 05/06/2004

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EXAMINER
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WU, XIAO MIN

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/966,009

Applicant(s)

BRABANDER ET AL.

Examiner

XIAO M. WU

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-24 and 28 is/are rejected.
- 7) ☒ Claim(s) 1-21 and 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/23/2002</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 22-24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blouin (US Patent No. 5,850,205) in view of Yamakawa et al. (Pub. No. US 2002/00182249).

As to claims 22-24, 28, Blouin discloses a method for real time correction of light output and/or color of an image displayed on a display device (10), comprising: displaying the image on an active display area on the display device, making optical measurements (52) on light emitted from a representative part of the active display area and generating optical measurement signals therefrom, controlling (12) the display of the image on the active display area in accordance with the optical measurement signals. It is noted that Blouin does not specifically the step of making optical measurements comprises selecting light such that the ratio between the amount of light

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used for control which is emitted or reflected from the display area at a subtended acceptance angle of  $30^\circ$  or less to the amount of light used for control which is emitted or reflected from the display area at a subtended acceptance angle of greater than  $30^\circ$  is X:1 where X is 1 or greater. Yamakawa is cited to teach using a linear optical sensor for measuring the light emitted from a pixel in different angle direction (see Fig. 1B). Yamakawa further discloses that the LCD panels have a characteristic that the luminance varies with viewing angle such that in a vertical direction (e.g. in  $0^\circ$ , the sensor will receive maximum light intensity of the emitted light the pixel and in  $20^\circ$ ,  $40^\circ$ ,  $60^\circ$ , and  $80^\circ$ , the sensor will receive less and less light intensity of the emitted light from the pixel). Thus, the ration between the amount of light used for control which is emitted from the display area at a subtended acceptance angle of  $30^\circ$  or less to the amount f light used for control which is emitted from the display area at a subtended acceptance angle of greater than  $30^\circ$  is X:1 where X is 1 or greater. It would have been obvious to one of ordinary skill in the art to have modified Blouin with the features of angle measurement as taught by Yamakawa, so that the pixel can be adjusted more accurately.

***Allowable Subject Matter***

4. Claims 1-21 and 25-27 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:.

None of the prior art reference, alone or in combination, teaches or suggests a system for real time correction of light output and/or color of an image display device, the system comprising: on the basis thereof controlling the electronic driving system, wherein the optical aperture of the optical sensor unit has an acceptance angle such that at least 50%, alternative 60%, alternative 70%, alternative 75% of the light received by the light sensor comes from light

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traveling within 15° of the optical axis of the light sensor as required in independent claim 1.

Also, none of the prior art references teaches or suggests on the basis thereof controlling the electronic driving system, wherein the optical aperture of the optical sensor unit has an acceptance angle such that light arriving at an angle with the optical axis of the light sensor which is 10° or greater is attenuated by at least 25%, light arriving at angle of 20° or greater is attenuated by at least 50% and light arriving at an angle of 35° or greater is attenuated by at least 85% as required in independent claims 11 and 25.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US Patents 5,007,731, 5,406,213, 5,465,052, 5,504,438, 5,597,223, 6,052,166, 6,670,603, US2001/008395, US2003/0117714 are cited to teach a display including an optical sensor.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377

xw

May 3, 2004



**XIAO WU**  
**PRIMARY EXAMINER**  
**ART UNIT 2674**